

APPARATUS FOR THE EVAPORATION OF AQUEOUS ORGANIC LIQUIDS AND
THE PRODUCTION OF POWDER PRE-FORMS IN FLAME HYDROLYSIS
PROCESSES

ABSTRACT:

[0023] An organic liquid evaporation system is disclosed. The organic liquid evaporation system comprises a housing having at least one inlet and at least one outlet. At least a first evaporator plate radially extending from a sidewall of the housing, and at least a second evaporator plate radially extending from a sidewall of the housing define a serpentine flow path within the housing. A heating source is in thermal communication with the first evaporator plate and the second evaporator plate, wherein the heating source provides heat to the first and second evaporator plates to evaporate organic liquid introduced within the inlet to produce a vapor through the outlet. A method for preparing powder pre-forms and oxide soot using the organic liquid evaporation system is also disclosed.